



UCH COMPRESSION PROJECT



Design Engineering, Procurement (Supply), Construction, Installation/Erection, Pre-Commissioning, Commissioning & Start-up (including performance testing and Reliability Guarantee Test) of UCH Front End Compression Project

Tender Enquiry No. PROC-FC/CB/PROJ/UCH (COM)-5155/2021

Pre-Bid Clarification-05

Sr. No.	Bidder Query (01-Dec-2021)	OGDCL / ENAR Response (03-Dec-2021)
1	Bidder understand that for estimating Piping Lengths, Bidder shall required native file of Piping/Plot Plan, in order to make estimations.	Piping lengths could be estimated with dimensions already provided in PDF format drawings. However, for bidders' convenience native file of Plot plan is also attached for piping lengths estimation purpose only. Piping plans (pdf) are already part of tender document.
2	Tie in Points with the existing systems are not defined in any layout. Please clarify.	Please refer Piping Plans' already part of tender (Vol-II\IIB Mechanical\Drawings) where tie-ins (denoted by TP/TIP) with existing network are clearly marked. Further during site visit, same has already been physically identified.
3	Diesel Tank structure drawing and other details are not provided. Please specify, so that bidder can evaluate the scope of relocation.	Tank details already provided in Plotplan and P&IDs which are sufficient for estimation purposes. However, GA drawing of Diesel Storage Tank (Rev. IFC) is attached for estimation of relocation works only. Whereas, detailed engineering for relocation works shall be in scope of EPC contractor.
4	Bidder understand that F&G Detection philosophy to be provided, in order to finalize number of detectors and type of Detectors, otherwise detectors quantity can not be finalized and can not be fixed.	Minimum numbers of fire & gas detectors required are already mentioned in Tender/project documents, however the quantities and location shall further be finalized after F&G mapping study during detail engineering stage by EPC Contractor.
5	Bidder understand that Cable laying from Main Plant MCC switchgear to New MCC shall be in bidder scope. Whereas Length of cable can not be estimated through PDF layout, Please provide editable existing Cable routing layout so that cable length can be estimated.	Bidder's understanding is correct. Further, Cable routing layout is already submitted (pdf format) for estimation of cable routing. And, editable plot plan is attached herewith, therefore, bidder can measure length of required cable respectively.
6	Considering Cable laying in Compression area and from New MCC to Plant Equipment, bidder understand that no method is clearly defined and this will effect cable sizing also. Please clarify.	Cable laying method from new MCC to plant/field equipment is direct buried. Only cables laying on skid / structure shall be above ground i.e. via cable tray or conduite. Also, if there is any paved area, cable laying shall be in RCC cable trenches.
7	Please provide details about existing DCS System, including vendor details.	The details of existing DCS are already mentioned in Tender/Project documents. Refer Vol-II (IID-Instrumentation) of the tender document.
8	Please provide location of Existing Control Room in Plot Plan, as existing Control room is not marked in Plot Plan.	Refer attached native file.



UCH COMPRESSION PROJECT

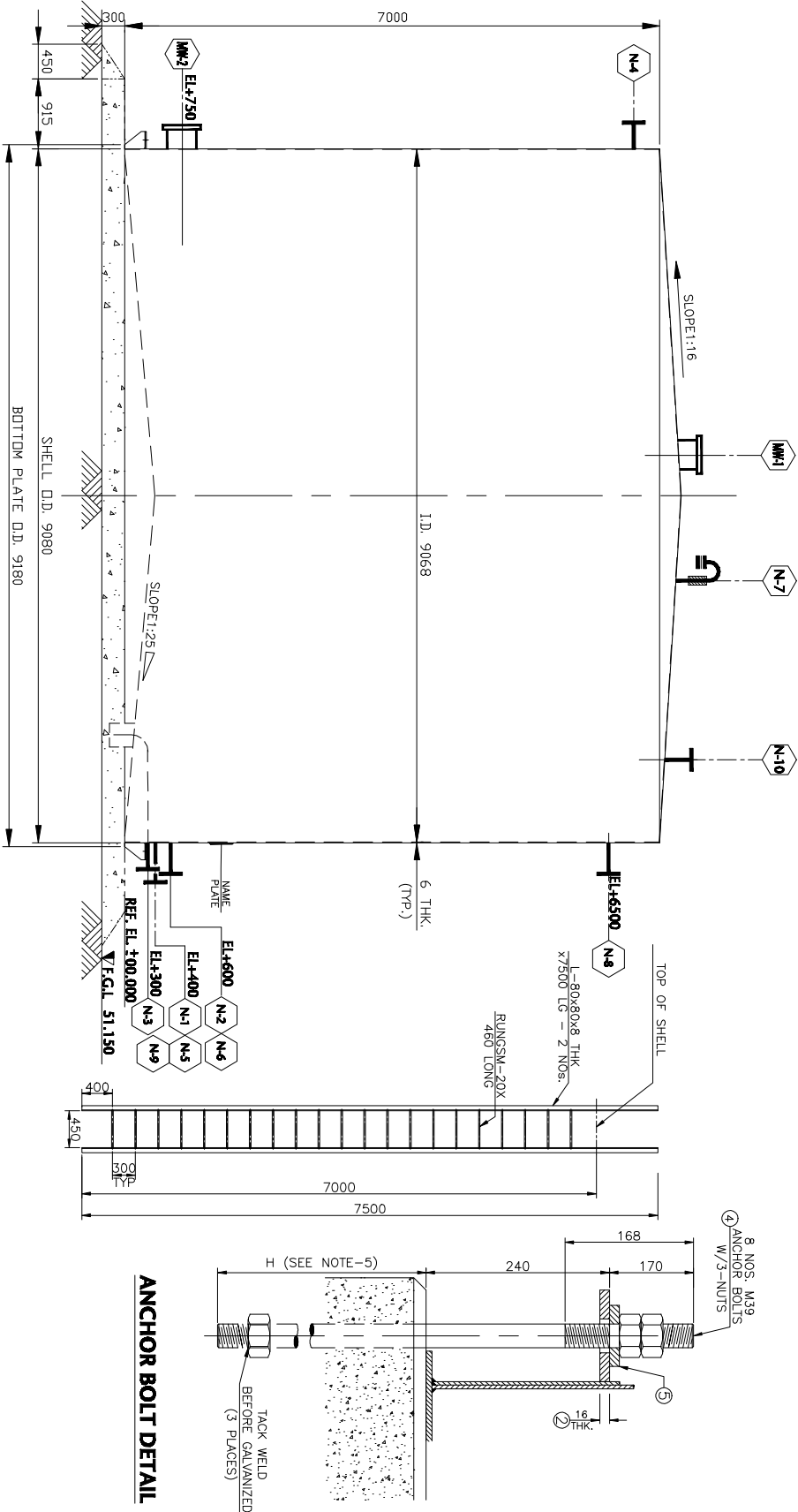


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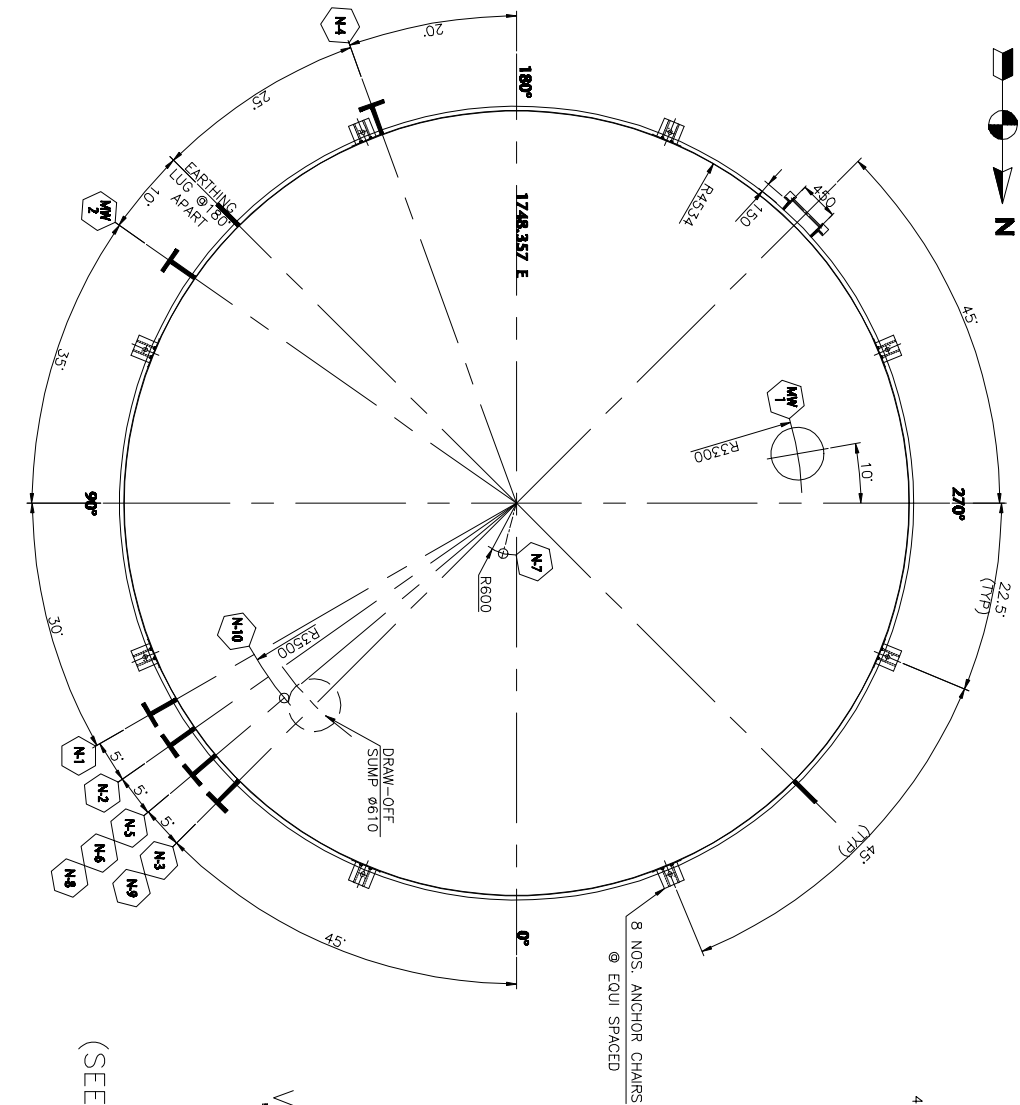
Pre-Bid Clarification-05

Sr. No.	Bidder Query (01-Dec-2021)	OGDCL / ENAR Response (03-Dec-2021)
9	Bidder understand that Shutdown shall be provided for Tie in of New Plant and all shutdown activity including depressurization of existing Plant shall be carried out by OGDCL.	For shutdown, OGDCL shall communicate EPCC as per their planned schedule, which shall be followed by EPCC for early tie-ins. Depressurization of the respective area shall be carried out by EPCC under supervision of OGDCL including flushing, purging activities etc.
10	Bidder understand that Slug Catcher size is fixed and Bidder shall quote accordingly, whereas transient modeling of Slugs has been carried out for sizing of Slug catcher and no further study is required.	Bidder's understanding is correct. However, EPCC Contractor shall vet and endorse Process FEED package (Tender Document/Volume-IIA) and shall submit Vetting & Endorsement Report to OGDCL/Consultant prior to performing Detailed Engineering.
11	Bidder understand Gas Dispersion modeling is not yet carried out and type of detectors shall be selected based on gas dispersion modeling. Further studies shall be carried out including Isopleth modeling for H ₂ S, So quantity and location of detectors shall be assessed during detailed engineering. Please clarify how bidder shall quote at this stage.	As stated in Tender/project documents that F&G mapping study shall be conducted by EPC Contractor during detail engineering stage, further H ₂ s detectors where required shall be supplied and installed by EPC Contractor.
12	Bidder understand that Material selection study is carried out and all provided material for piping is fixed. Please confirm.	Considering the brownfield project, existing material selection study is used. Furthermore, bidder shall be responsible to vet/endorse the FEED study as per tender requirements.
13	Bidder understand that existing Flare has been evaluated and any short coming in existing flare system due to addition of FEC shall not be in Bidder's scope.	Bidder's understanding is not correct. Bidder is advised to refer Sec-2.6 of SEC-III (Scope of Work).The requirements are well elaborated and bidder to quote accordingly.
14	Bidder understand that Given wellheads are controlled through existing system and No modification shall be made in controlling of wellheads after addition of hydrate inhibitor packages.	The I/Os of Hydrate Injection skid as mentioned in project I/O list shall interface with respective wellhead RTU (Control System) and accordingly wellhead RTU shall be modified (hardware/software). Further, bidder to adhere with tender requirements.
15	Bidder understand that relocation of diesel tank shall only include relocation of tanks and pumps. Please clarify the scope of piping at other end including size of piping, class, and lengths.	Please refer Sec-9.0 of SEC-III Scope of Work. Also, piping plan is attached,. Furthermore, any missing information shall be gathered from site by bidder itself.
16	Please confirm cable sizes of Diesel pumps and other cables included in relocation.	Please review relocation scope carefully. Cables shall not be dismantled, only cables shall be unterminated from both sides and covered with caps and existing cables shall remain buried in trenches. However, existing location/plot shall be made free for installation of centrifugal compressor as marked in the plot plan. Further, new cables shall be sized and supplied for diesel pumps as per new location.

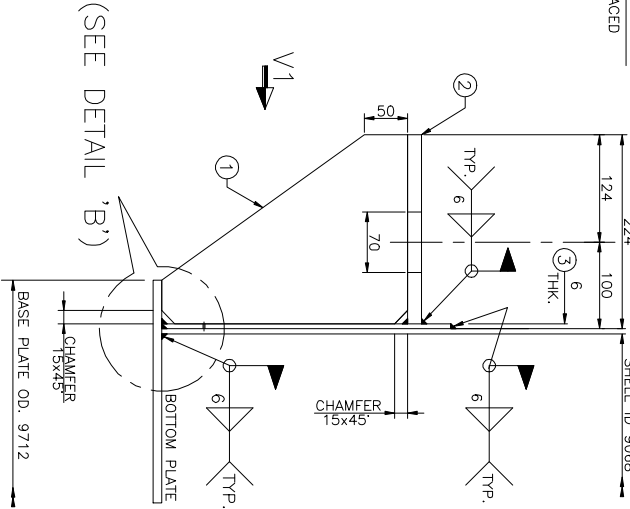


ANCHOR BOLT DETAIL

ELEVATION



VIEW-V2



ANCHOR CHAIR DETAIL

DESIGN DATA					
ITEM No.	800-TK101	CORROSION ALLOWANCE		SHELL PLATE	3 mm
NUMBER REQUIRED	01			BOTTOM PLATE	3 mm
SERVICE	DIESEL			ROOF PLATE	1.5 mm
DESIGN CODE	API 650			STRUCTURE	1.5 mm
NOMINAL CAPACITY	452m³			PUMPING RATE IN	50 GPM
NET WORKING CAPACITY	316m³			PUMPING RATE OUT	50 GPM
OUTSIDE DIAMETER	9.080m			PAINTING (EXTERIOR/INTERIOR)	YES/YES
INTERNAL DIAMETER	9.068m			SEISMIC SPECS.	4985-A-1000
NOMINAL HEIGHT	7.0m			DESIGN WIND VELOCITY	160 Km/hr.
DESIGN LIQUID LEVEL	6800 mm			COATING SPECS.	4985-GS-9523
NORMAL FILL LIQUID LEVEL	5600 mm			DESIGN RAINFALL	251mm/DAY
DEAD LIQUID LEVEL	500mm			ROOF TYPE	SUPPORTED CONE
PRODUCT SP. Gr.	0.850			ROOF CONE SLOPE	1:16
DESIGN PRESSURE	FULL OF WATER			VENT TYPE	OPEN BIRD WITH SCREW
DESIGN VACUUM PRESSURE	1" WC			BOTTOM TYPE	SLOPE UP
MIN. DESIGN METAL TEMP.	32°F			BOTTOM CONE SLOPE	1:25
OPERATING PRESSURE	ATM			LIVE LOAD	25lb/ft²
MAX. OPERATING TEMP.	132°F			EMPTY WEIGHT	24,193 TON
HYDROSTATIC PRESSURE	ATM			HYDROSTATIC TEST	476,268 TON
WEIGHTS					
ITEMS		WEIGHT (kg)			
SHELL		9399			
BOTTOM		5189			
ROOF PLATES		4272			
ROOF STRUCTURES		3000			
MANHOLE/NOZZLES/APERTUREANCES		1700			
VERTICAL LADDER/HAND RAILING		633			
ANCHOR ATTACHMENTS		240			
TOTAL (EMPTY)		24,433			
BOQ					
NOS.	DESCRIPTIONS	QTY.	MTRL.	WT.(kg)	
01	GUSSET PLATE 16 THK. (SEE DETAIL)	16	A36	130	
02	TOP PLATE 16 THK. x 218 x 250 LONG	08	A36	54	
03	REINFORCEMENT PAD 6THK. x 350 x 350	08	A283 Gr. C	46.2	
04	ANCHOR BOLTS M39 W/3 HEAVY HEX NUTS. (HOT DIP GALVANISED)	08	A307Gr. B A194 2HM	-	
05	PLATE 16 THK. (SEE DETAIL)	08	A36	10.1	

NOZZLE / MANHOLES

NOZZLE/ITEM No.	QTY. (INCH)	RATING (LB)	TYPE	TH	SERVICE	REMARKS
N-1	1	2	150 W.A.R.F.	400	150	DIESEL INLET
N-2	1	3	150 W.A.R.F.	600	150	DIESEL OUTLET
N-3	1	2	150 S.O.R.F.	300	150	DRAIN
N-4	1	4	150 W.A.R.F.	6600	150	FOAM LINE (TURNED ELBOW)
N-5	1	2	150 W.A.R.F.	400	150	LEVEL TRANSMITTER (D.P. TYPE)
N-6	1	2	150 W.A.R.F.	600	150	LEVEL INDICATOR BOB TYPE
N-7	1	3	150 S.O.R.F.	-	250	OPEN VENT WITH FLAME ARRESTOR
NM-1	1	24	-	-	175	ROOF MANHOLE
NM-2	1	24	-	-	750	SHELL MANHOLE
N-8	1	2	150 S.O.R.F.	600	200	OVER FLOW
N-9	1	2	150 S.O.R.F.	400	150	TEMPERATURE INDICATOR
N-10	1	4	150 W.A.R.F.	-	150	LEVEL INDICATOR

REFERENCE DRAWING

DESCRIPTION

DWG.

SHELL PLATE LAYOUT	4985-SDP-7871
BOTTOM PLATE LAYOUT	4985-SDP-7872
ROOF PLATE LAYOUT	4985-SDP-7873
SHELL MANHOLE DETAIL	4985-SDP-7874
ROOF MANHOLE DETAIL	4985-SDP-7875
VERTICAL LADDER DETAIL	4985-SDP-7876
DRAW-OFF SLUMP DETAIL	4985-SDP-7877
INLET AND OUTLET NOZZLE DETAIL	4985-SDP-7878
DRAIN NOZZLE DETAIL	4985-SDP-7879
OPEN VENT NOZZLE DETAIL	4985-SDP-7882
OVERFLOW NOZZLE PIPE SUPPORT DETAIL	4985-SDP-7883
COLUMN STRUCTURE DETAIL FOR DIESEL STORAGE TANK	4985-SDP-7884
RAFTER & BRACKET DETAIL FOR DIESEL STORAGE TANK	4985-SDP-7885
ROOF STRUCTURE LAYOUT FOR DIESEL STORAGE TANK	4985-SDP-7886
EARTHING LUG DETAIL	4985-SDP-7887
FIRE WATER SPRAY & SPLASH WATER	4985-SDP-7888
LEVEL INDICATOR DETAILS	4985-SDP-7889

MATERIAL OF CONSTRUCTION

DESCRIPTION	MATERIAL
SHELL, ROOF & BOTTOM PLATE	ASTM A-283 Gr. C
FLANGES	A-105
NOZZLE NECKS, EXTERNAL/INTERNAL PIPING	A-106 Gr. B
GASKETS	COMPRESSED NON ASBESTOS FILLED
BOLT & NUTS	ASTM A-307 Gr. B ASTM A-563 Gr. A
ELBOWS / FITTINGS	ASTM A-234 WPB
RAFTERS AND CURB ANGLE	ASTM A-36
PIPE FITTING	ASTM-A234 WPB
LADDER P/C.	ASTM A-36
SHELL / ROOF MANHOLE & REINFORCING PAD	ASTM A-283 Gr. C

GENERAL NOTES:-

1. ALL DIMENSIONS ARE IN mm. UNLESS OTHERWISE STATED.
2. "J" IS THE DISTANCE FROM OUTER SIDE OF SHELL TO THE FLANGE
3. PAINTING PROCEDURE WILL BE AS PER SPEC. 4985-GS-9523
4. TANK FOUNDATION SHALL INCLUDE GEO-MEMBRANE.
5. DIMENSIONS H SHALL BE SPECIFIED BY CIVIL DEPARTMENT

ISSUED FOR CONSTRUCTION

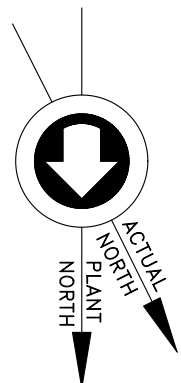
ENAR PETROTECH SERVICES (PRIVATE) LIMITED

OIL AND GAS DEVELOPMENT COMPANY LTD

UC-HI DEVELOPMENT PROJECT

COVER DRAWING FOR DIESEL STORAGE TANK 800-TK101(452 M³)

NO.	DATE	DESCRIPTION OF REVISION	BY	CHK	TS
1	16-10-2012	ISSUED FOR BIDDING	SAH	FLA	WK
2	27-03-2012	ISSUED FOR REVIEW	SAH	FLA	WK
3	27-03-2012	ISSUED FOR REVIEW	SAH	FLA	WK
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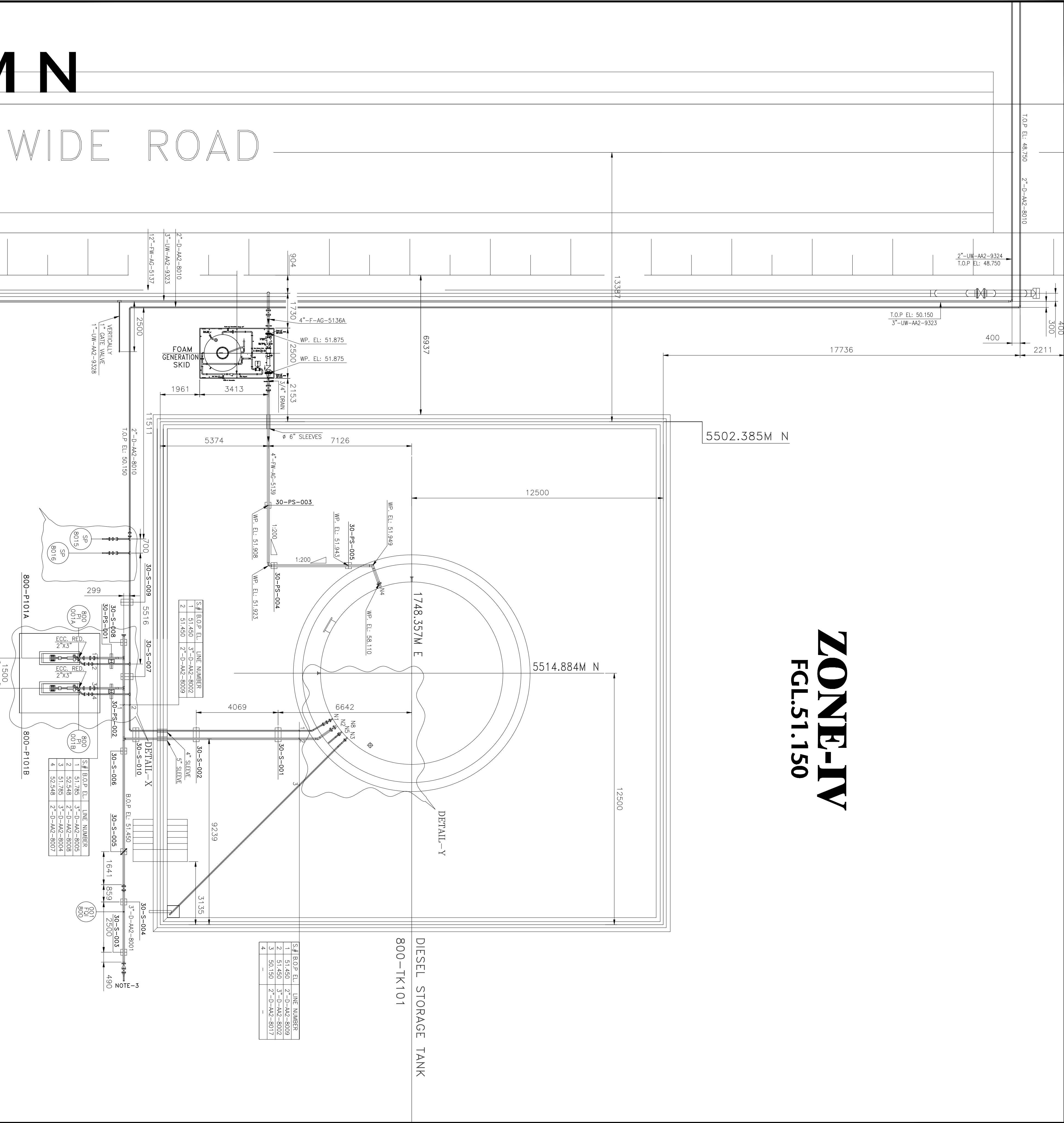
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800-TK101
DIESEL STORAGE TANK

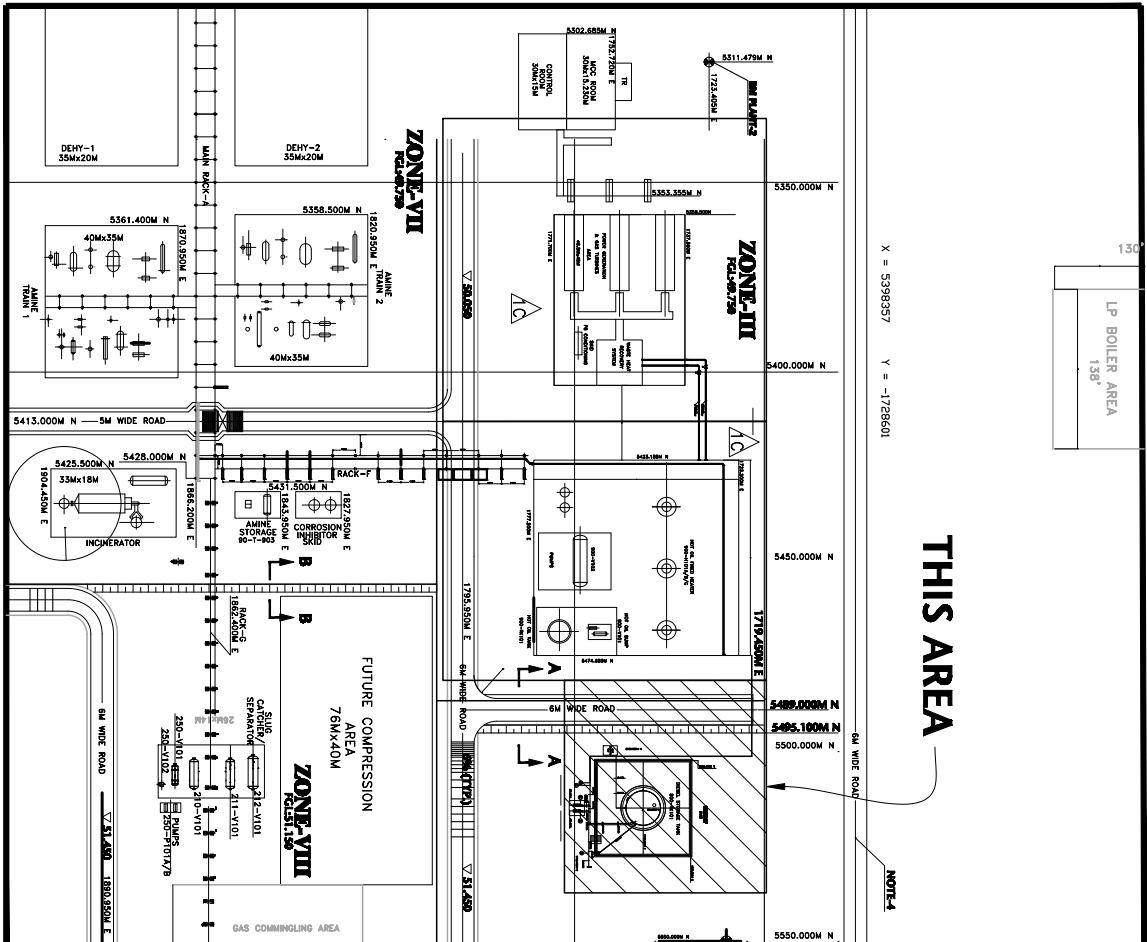
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MATCH LIMIT E. 1769.118

REFERENCE DRAWING

S.No.	DRAWING No.	DESCRIPTION
1	4985-PC-2201	OVER ALL PLOT PLAN
2	4985-PC-2205	PLOT PLAN ZONE-III & ZONE-IV
3	4985-PDF-2411	SECTIONING & DETAILING OF DIESEL SYSTEM
4	4985-STB-4207	SUPPORT LAYOUT FOR DIESEL STORAGE TANK ZONE-IV
5	4985-STF-4254	PIPE SUPPORT DETAILS FOR DIESEL SYSTEM



KEYPLAN

LEGENDS


ZONE
GRID
FENCE
EQUIPMENT

NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHER WISE SPECIFIED.
2. CONTRACTOR TO CHECK & VERIFY ALL DIMENSIONS PRIOR TO START OF FABRICATION / ERECTION & INSULATION WORK
3. HOSE CONNECTION FOR BOWSER UNLOADING.
4. LOCATION OF FOAM GENERATION SKID IS ON HOLD.

ISSUED FOR CONSTRUCTION

2	06-12-2013	ISSUED FOR CONSTRUCTION	ASIM	MAJ	FAS	FS
1	09-01-2013	ISSUED FOR REVIEW & APPROVAL	ASIM	FLA	NA	FS
0	05-12-2012	FIRST ISSUED	ASIM	FLA	NA	FS

	2	06-12-2013	ISSUED FOR CONSTRUCTION			ASIM	MAJ	FAS	FS
	1	09-01-2013	ISSUED FOR REVIEW & APPROVAL			ASIM	FLA	NU	FS
	0	05-12-2012	FIRST ISSUED			ASIM	FLA	NU	FS
	REV.	DATE	DESCRIPTION OF REVISION			DRAWN	CHECKED	APPROVED	

ENAR PETROTECH SERVICES

(PRIVATE) LIMITED

Job No. 144985

ENAR (PRIVATE) LIMITED

Job No. 14-4985

Dwg. No. 4985-PD-2307

OIL & GAS DEVELOPMENT COMPANY LTD.

UCHAI DEVELOPMENT PROJECT
PIPING LAYOUT FOR
DIESEL STORAGE TANK ZONE-IV

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